State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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#12

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September 13, 2012

Kane Family Farm
Attn: Tim Kane
4367 Lark Road
Denmark, WI 54208

Subject: Permit Issuance Status and Compliance Inspection Summary

Dear Mr. Kane,

On September 7, 2012 the Department of Natural Resources (Department) inspected Kane Family Farm (Kane) to determine eligibility for issuance of a Concentrated Animal Feeding Operation WPDES permit. Enclosed you will find the inspection report for your review. At this time, Kane is in substantial compliance and is eligible for permit issuance. The site inspection identified two items that must be addressed. The following must be submitted prior to permit issuance:

- The actions that will be taken and any practices that will be installed to address the milk-house discharge that is entering the filter strip.
- Plans regarding the installation of permanent markers for all liquid manure storage facilities.

Please submit the items described above to my attention at the address in the letterhead by **November 16, 2012**. I have enclosed the Monitoring and Inspection Program Template and a document describing permanent markers for liquid manure storages. You may review, sign, and submit the inspection program to my attention, or we can discuss this at length after your permit is issued. Once your nutrient management plan is submitted, the Department will work with Kevin Beckard of Ag Source towards approval of the plan. Upon approval of the nutrient management plan, your permit must be public noticed for 30 days. If no significant changes to the draft permit result from public comments, the permit will be issued shortly after the notice period ends. If you have any questions regarding this letter or the inspection report, please contact me at (920) 662-5407 or via email at jeremiah.schiefelbein@wi.gov.

Sincerely,

Jay Schiefelbein
Agricultural Runoff Management Specialist

Encl: Inspection report
Monitoring and Inspection Program Template
Permanent Markers for Liquid Manure Storages

cc. A. Craig, T. Bauman, M. Solomon - Madison
Brown County LCD
K. Beckard – Ag Source
File

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CAFO WPDES Compliance Report (September 12, 2012)

Inspection date: September 7, 2012

Inspection type: Permit Issuance Inspection

Operation Name: Kane Family Farm

WPDES Permit No. N/A

Operation Address: 4367 Lark Road, Denmark WI 54208

On-Site Representatives: Tim Kane

DNR Staff: Jay Schiefelbein, Agricultural Runoff Management Specialist

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On September 7, 2012 the Department of Natural Resources (Department) conducted a pre-permit compliance inspection at Kane Family Farm (Kane) to determine if the facility met the requirements for permit issuance. The Main Dairy is located in the SE ¼, SE ¼ Sec 2, T 21N, R 21E, Town of Morrison, Brown County. The Cooperstown Heifer Site (Cooperstown) is located in the SE ¼, SE ¼ Sec 35, T 22N, R 21E, Town of Glenmore, Brown County. Present at the inspection were: Tim Kane (Owner/Manager), and Joe Baeten (Department Nutrient Management Specialist). This report summarizes meeting discussions and site observations.

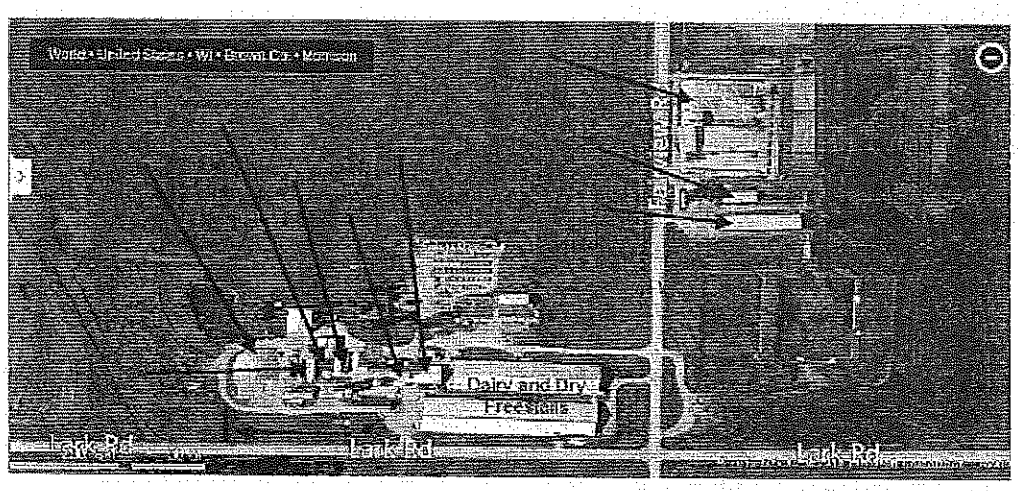


Image 1: Site Overview map of the Main Dairy Facility located at 4367 Lark Road.

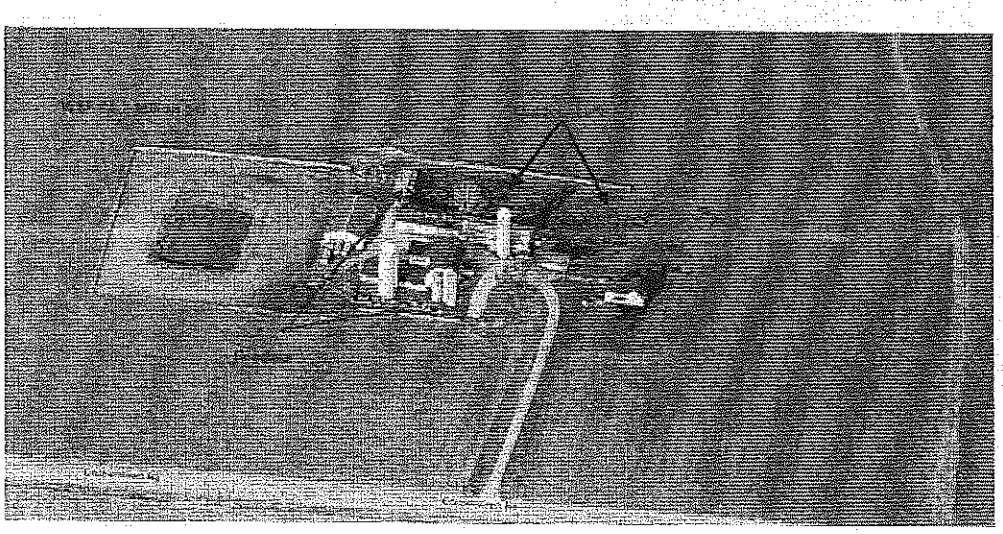


Image 2: Site overview map of the Cooperstown Heifer Site. Cooperstown is the first farmstead on the north side of Cooperstown Rd, west of Fairview Rd.

Feed Storage Area

At the time of inspection, most of the feed was stored in bunkers on a concrete pad which drains to a tile inlet that drains to a 5,000 gallon tank and is then pumped to Waste Storage Facility (WSF) #3. After the first flush is collected (156,943 total gallons which is comprised of leachate and 0.05" rainfall as per the as built documentation), the remaining runoff disperses into a spreader box before flowing into the vegetated treatment area. At the time of inspection, Mr. Kane noted the stressed condition of the corn that is growing in the VTA. Alternative crops were suggested as an alternative to corn within the VTA; any alternative vegetation that is grown in the VTA shall be kept at a height that allows visual inspection for signs of erosion or excessive nutrient loading to the VTA. The floor and bunker walls appear to be in good condition; most of the construction has occurred within the last two years. Feed is typically put up at 63%-64% moisture which reduces the amount of leachate generated. Small amounts of feed appeared to be placed over the west side of the feed pad. Although there were no signs of leachate migrating from the feed, it is highly recommended that all feed be placed on the pad to promote drainage to the feed leachate collection system and reduce the potential for an offsite discharge.

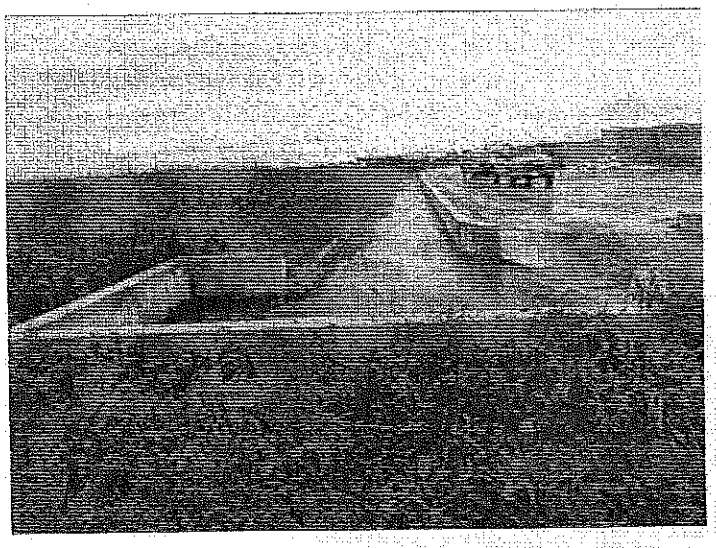


Image 3: Image Direction: South Leachate collection point, spreader box, and the VTA which extends to the east.

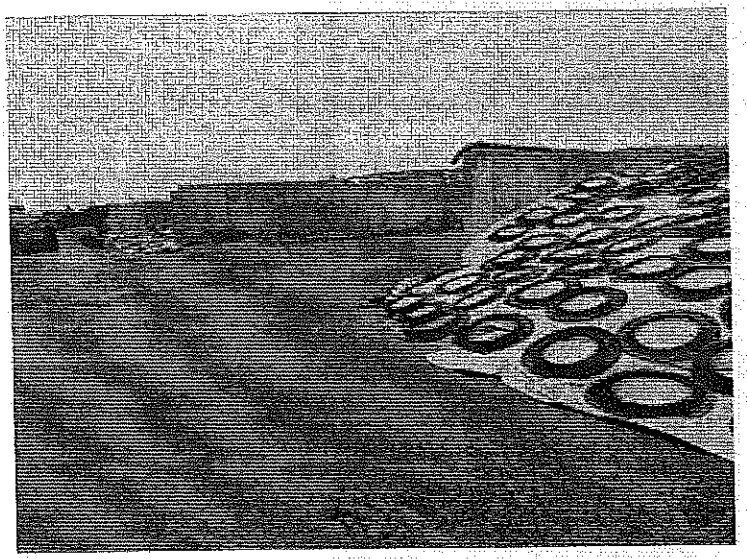


Image 4: Image Direction: Southwest Feed leachate and runoff flows east and then north to the collection area shown in Image 2.

Manure Storage – Cooperstown Heifer Site (Satellite)

WSF #4 is a .5 million gallon clay-lined storage located at Cooperstown and is used primarily for the solid manure generated by the heifers kept onsite. At the time of inspection the facility had adequate freeboard and there was no evidence of overtopping. An MOL marker will need to be installed at this storage facility.

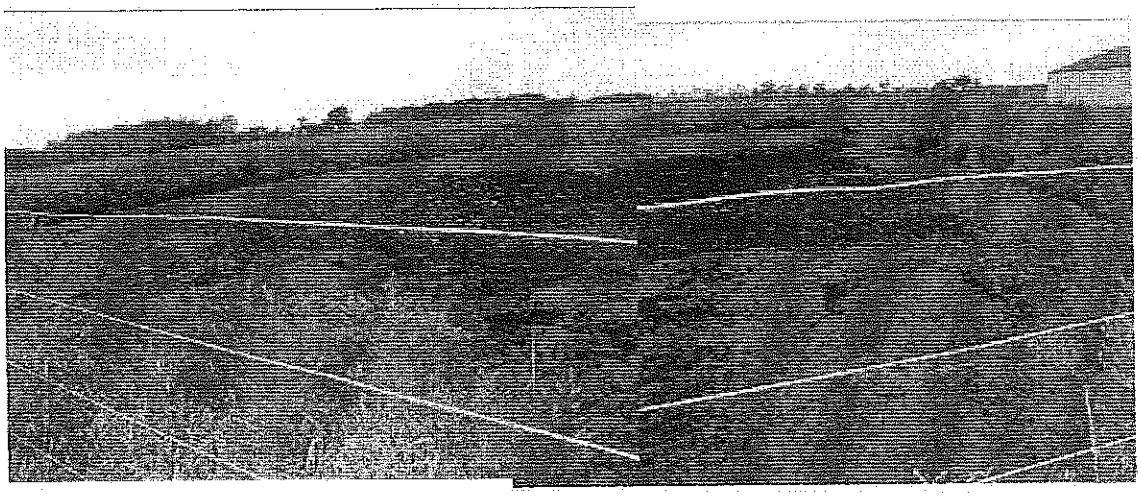


Image 6: Image Direction: North
WSF #4 was operating with adequate freeboard. Manure storage level markers (including MOL) must be installed.

Solid Manure

Solid manure generated by Kane either settles out in WSF #1 at the Main Dairy or is placed in WSF #4 at the Cooperstown Site.

Outdoor Lots – Main Dairy

There is a small outdoor lot at the main dairy located immediately south of the building that houses young stock (Image 1). This lot is scraped 1-2 times per week and typically has no more than 4 or 5 animals on it at any one time. Material that is scraped from this lot is placed in the 200,000 gallon reception pit to the west. At the time of inspection, the lot was clean and in good condition; there was no evidence of offsite discharges. The concrete lot/barnyard south west of the parlor has not been used since the construction of the holding area located east of the parlor.

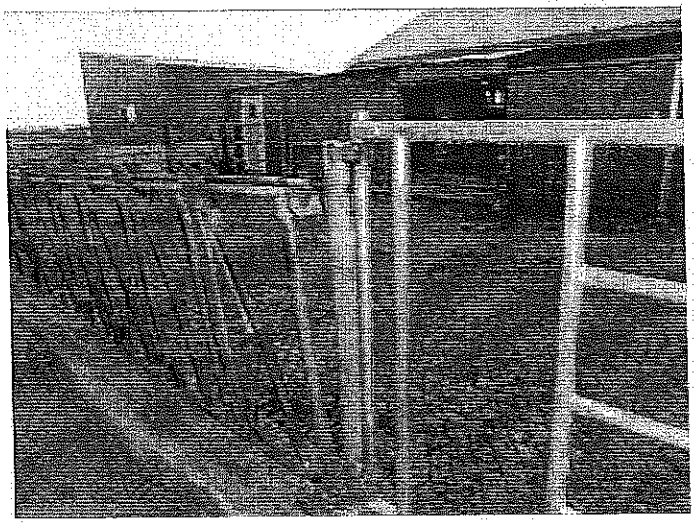


Image 7: Image Direction: Northwest
Outdoor feedlot at the Main Dairy. Lot is scraped 1-2 times per week; no offsite discharges were observed at the time of inspection.

Manure Storage – Main Dairy

There are currently 3 liquid manure storage basins at the main dairy location (WSF #1, #2, and #3) and are .5 million gallons, 2.5 million gallons, and 4 million gallons respectively (Image 1). WSF #1 is a concrete lined basin primarily used for sand and solid settling. WSF #2 and #3 are clay lined storage facilities with concrete agitation pads. Manure and sand bedding from the freestall barns are scraped into a reception pit in the north freestall and are then pumped to WSF #1. Process wastewater, milk house waste, and the manure generated in the youngstock building is pumped to WSF #1 through the pump house (Image 1). The manure generated in the youngstock building is temporarily stored in the 200K-250K reception pit east of the building prior to being pumped to WSF #1. Manure generated at the feed storage area is pushed into a 700 gallon tank and pumped to WSF #3. During cold months, the pump is removed, and all frozen liquid manure is pushed into WSF #3. At the time of inspection, there was no evidence of manure overtopping and the facilities had adequate freeboard. During the inspection installation of permanent markers on all waste storage facilities was discussed as were the many options available. Kane currently has approximately 7.5 million gallons of available storage capacity and generates approximately 7.4 million gallons of manure and process wastewater which results in approximately 365 days of storage. After the first expansion of approximately 200 animals, Kane will have approximately 6-7 months of storage; the 180 day storage requirement was also discussed.

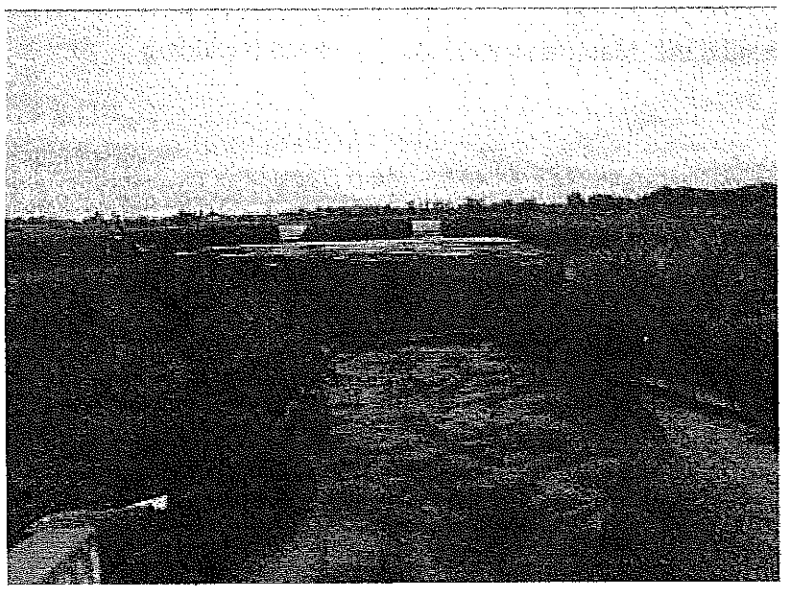
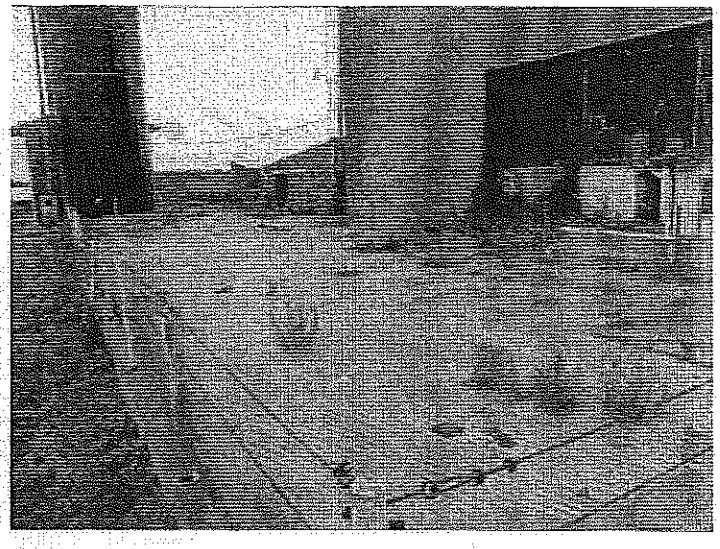


Image 5: Image Direction: South WSF #3 is a clay lined basin with concrete agitation pads. The maximum operating level (MOL) marker was not observed during the inspection; the permit application states that the MOL is at elevation 103.3'. This marker must be installed in a location that is clearly visible.

Image 8: Image Direction: West/Northwest Outdoor lot/barnyard located southwest of the parlor.



Outdoor Lots – Cooperstown Heifer Site (Satellite)

There are two outdoor lots at Cooperstown; each is approximately 18,000ft^2, one of which includes a 2,200 ft^2 paved drive by feeding area. Neither lot showed evidence of offsite discharges; areas adjacent to the lots were well vegetated and showed no signs of channelized flow. The lots were evaluated using the Barnyard Evaluation Rating Tool (BERT); neither lot was assumed to be a resource concern. The feedlot on the south side of the facility was clean at the time of inspection; however, the field south/southeast of the feedlot showed signs of stressed vegetation. This may or may not be related to the feedlot runoff. It was recommended to Mr. Kane by Ms. Gail Lisse, P.E. that drive-over curbs be installed at the gates to the feedlots to assist with keeping manure and contaminated runoff on the lot; the Department agrees with this recommendation. Mr. Kane stated that both of the concrete feedlots are cleaned daily and the material is placed into WSF #4. The outdoor exercise lots are scraped yearly and the material is placed on the dirt mounds that exist within the lots.

Image 9: Image Direction: East The two outdoor lots are shown in this image; the lot with the paved feeding area is seen in the foreground and the second lot exists east of the fence that divides the two lots.

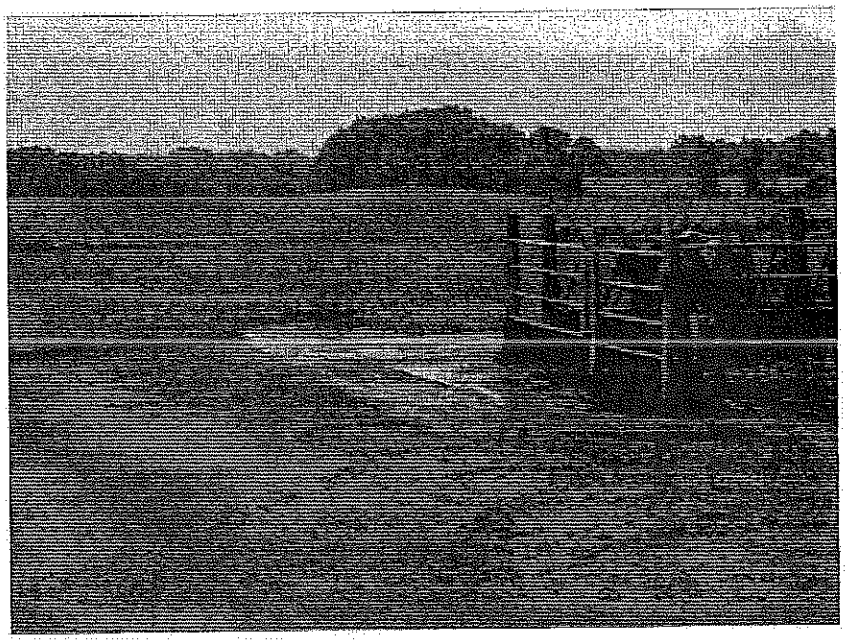


Image 10: Image Direction: South Feedlot on south side of Cooperstown. At the time of inspection, it appeared as though waste material from the feedlot may be reaching the field south of the feedlot. A drive-over curb may help contain any accumulated manure to the lot.

Parlor Loading Area

During the inspection spilled milk was noticed on the loading dock where the milk tankers were parked. This material enters a concrete collection channel and enters a small ditch before entering a filter strip that was designed by Brown County LCD to treat the contaminated runoff from the barnyard when it was in service. The material flows through the filter strip and continues west approximately to the west border of the temporary feed stack (Image 1). No evidence of further migration was witnessed; however, given the environmental impacts of milk house waste, it is important that measures are put in place to ensure that this issue is appropriately addressed and that the potential for an offsite discharge stops.

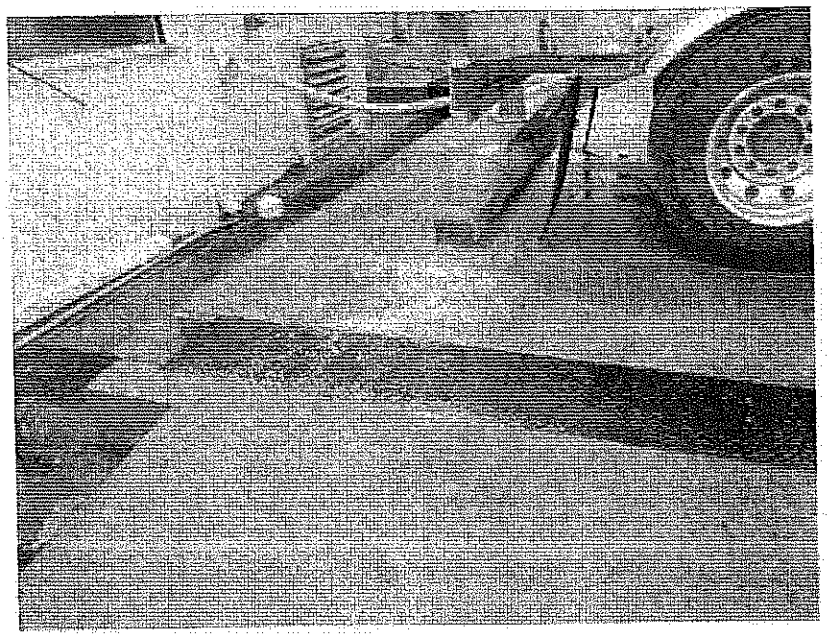


Image 11: Image Direction: East
Spilled milk travels through a concrete channel to a filter strip prior to entering a field.

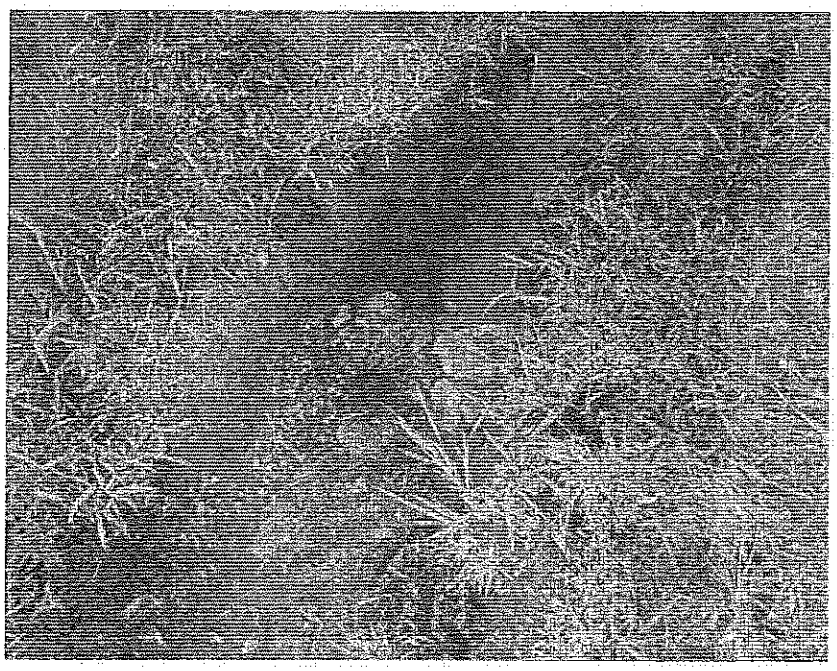


Image 12: Image Direction: N/A
The contents of the ditch indicate that the milk discharge is likely a reoccurring issue.

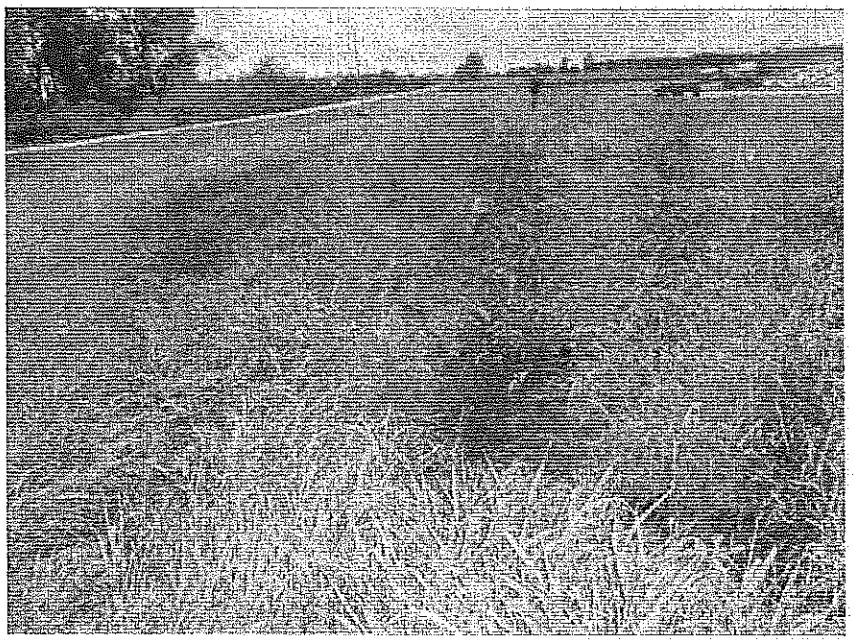


Image 13: Image Direction: West
Evidence of the milk waste discharge was observed as far as the western limits of the temporary feed pile that is seen on the upper right of the image. Migration distance is also shown by a solid blue vertical line in Image 1.

Summary of Additional Discussions

Construction/Plan and Specification Review/Wetlands

In addition to the content above we also discussed the proposed expansions for Kane. Mr. Kane was informed that plans and specifications must be submitted to the Department for all reviewable structures that will be constructed at Kane; this includes but is not necessarily limited to manure transfer, manure or feed storage (or modifications to those facilities), and certain runoff controls. We discussed the importance of obtaining all necessary permits and approvals prior to beginning construction in order to prevent delays that may impact desired timelines of the construction projects. We also discussed the importance of reviewing proposed construction sites for wetlands or wetland indicators. We reviewed the maps in the permit application which showed the areas of wetland indicator soils and discussed the steps that need to be taken prior to disturbing these areas for construction activities.

Nutrient Management

Brian Ebert of County Vision Coop will be working with Kevin Beckard of Ag Source to develop the five year Nutrient Management Plan for Kane. During our discussion Mr. Kane stated that he typically works with L&M for Kane's manure hauling and although they typically send the same drivers to Kane, Mr. Kane will take the drivers to the fields and review the setbacks with the drivers. Additionally, Mr. Kane stated that typically a rate of 10,000 gallons per acre is not exceeded.

Reporting Requirements

The inspections that must be completed upon issuance of Kane's permit were briefly discussed. From the discussions and the observations made at Kane, it is apparent that Mr. Kane is already performing routine inspections at the facility. Upon permit issuance, these inspections will be documented.

Substantial Compliance

Although there were some deficiencies at this time, there are no discharge issues from the production sites that are impacting water resources. After review of the permit application materials, and the permit issuance inspection, the Department deems Kane Family Farm in substantial compliance and eligible for permit issuance.